

Home Energy Savings HANDBOOK







Homeowner Application

STEP 1

Applicant Information Applicant Name: _____ Applicant Address: Applicant Phone Number: _____ Number of residents in the home: _____ **Housing Information** Type of Structure: (circle one): One Story Two Story Bsmt (finished/Wout) CS Exterior Type: _____ Square Footage: _____ Income Documentation: Birthday Relation to Applicant Monthly Income Name 1. _____ 3. _____ **Applicant Certification Statement** I certify that all of the information provided in this application for weatherization assistance is true and correct. I understand that anyone who fraudulently covers up a material fact or who knowingly gives false information for the receipt of the Home Energy Savings Program is liable upon conviction to a fine of \$10,000 or imprisonment for not more than five years, or both. I authorize the verification of any and all information provided herein to determine my eligibility, and acknowledge that I have been informed of my appeal rights. I understand that I will be notified in writing of my eligibility status. Pursuant to federal law (5 United States Code 552 (b)(6) and 10 Code of Federal Regulations 600.153(f)), identifying information provided by you for determination of your eligibility for the Home Energy Savings Program and for the provision of services from the program will be considered confidential and, unless otherwise authorized or required by law, will not shared with any other persons or agencies except for purposes directly related to the administration of the Home Energy Savings Program. Applicant Signature Date

HOME ENERGY SAVINGS PROGRAM Agreement to Participate

STEP 2

I agree to participate on a voluntary basis in the Home Energy Savings Program (HES) being conducted by Hands On Nashville (HON). As used in this agreement, "I" shall be deemed to mean both the owner and the tenant unless specified otherwise. The HES Program is designed to provide Participants like me with an in Home Energy Evaluation, which includes an "Evaluation Report" identifying recommended measures for installing the recommended scope of work. My single-family dwelling (Residence) will be used in the HES Program for data collection and analysis.

I have had the HES Program explained to me, including it being limited to identifying energy efficiency measures, and I agree to participate in the HES Program under the following conditions:

I agree to release, indemnify, defend, and save harmless HON, volunteers and contractors from all liability, claims, demands, causes of action, costs, or losses for personal injuries, property damage, special damages, consequential damages, indirect damages, or loss of life or property, sustained by me, my agents, my family or third parties arising out of or in any way connected with the in-home energy evaluation, inspection, the evaluation report, the recommended measures, or the installation, testing operation, maintenance, repair, replacement, removal, defect, or failure of my energy efficiency measures. The obligations of this section shall survive termination of this agreement.

Participant Signature	Date
HES Representative Signature	Date

HOME ENERGY SAVINGS PROGRAM Photo/Audio/Video Release Form

n consideration of the opportunity to participate in audio/video taping and photography and popular provide statements relating to Hands On Nashville's Home Energy Savings Program (HES), I, [add your name] for myself and, in the case of a minor's participation
[Add the name of the minor for whom you are the parent/guardian, if pplicable] (the "Minor"), for myself and the Minor in my capacity as the Minor's parent/guardian, agree as ollows:
1. I hereby consent to the recording of statements, photographs, and audio/video footage taken of mand/or the Minor by Hands On Nashville and its contractors.
2. All statements, photographs, and/or audio/video recordings taken of the me and/or the Minor by Hands On Nashville and its contractors, may be used by Hands On Nashville for promotional, commercial, or other purposes as determined by Hands On Nashville anywhere in the world in its sole discretion. Neither I nor the Minor shall have any right to control the use or publication by Hands On Nashville of the statements, photographs, and audio/video recordings.
3. All statements, photographs, and audio/video recordings taken of me and/or the Minor by Hands O Nashville and its contractors, shall be the sole property of Hands On Nashville. Neither I nor the Minor shall receive any compensation in connection with use of these statements, photographs, and audio/video recordings for promotional, commercial, or other purposes.
4. On behalf of myself and/or the Minor, I hereby release, waive and discharge any claims of any kind nature arising out of or relating to the use of the statements, photographs, and audio/video recording against Hands On Nashville or any person or firm authorized by Hands On Nashville to publish said materials ("Publisher"). Such release, waiver, and discharge shall also extend to all affiliated companie shareholders, directors, officers, employees, agents, and assigns of Hands On Nashville and any Publisher.
5. This Release shall be binding upon myself and/or the Minor and our respective successors, heirs, assignees, executors, administrators, spouse, and next of kin.
6. I HAVE READ THIS DOCUMENT AND I UNDERSTAND THAT I GIVE UP SUBSTANTIAL RIGHTS ON BEHALF OF MYSELF AND/OR THE MINOR (INCLUDING RIGHTS RELATING TO PUBLICITY AND PRIVACY WITH RESPECT TO THE PSA/COMMERICAL USE OF ANY STATEMENTS, PHOTOGRAPHS, AND AUDIO/ VIDEO RECORDINGS) AND I SIGN THIS RELEASE FREELY AND VOLUNTARILY.
Date Name of Minor (under age 18) Your Name

HOME ENERGY SAVINGS PROGRAM Timeline and Expectations

STEP 4

FIRST visit: Hands On Nashville (HON) Home Consultation (1.5 hours)

During this visit, the homeowner will complete a program application and learn the program process. HON will complete a visual energy audit to create a scope of work for volunteers or contractors to complete on your home. A project date is confirmed during this time.

Please wait for Temp Control to call you to set up an appointment.

Homeowner Responsibilities in Preparation for the Project:

- 1. Please clear any items over floor vents for ease of access to test ducts.
- 2. Clear attic storage to center of attic for optimal attic insulation installation.
- 3. If attic access is in closet, clear all items in closet for optimal project performance.

Cancelations must be made one week in advance: Canceling within a week results in forfeit of program participation & benefits.

SECOND visit: PROJECT Date & Inspection

Volunteers:

Project Leaders arrive at 8 a.m. to set up. Volunteers arrive at 9 a.m. Projects are completed by 1 p.m. Typically, five to 10 volunteers will help complete the scope of work on your home.

Homeowner Responsibilities During the Project:

- 1. Place all pets in behind closed doors in a room that will not be accessed or secure outside.
- 2. No smoking in the home while volunteers are working.
- 3. You and/or any family members are welcome to help on project day, if able.
- 4. Engage with volunteers HON staff, and contractors: We invite you to eat lunch with volunteers and ask them why they signed up for the project.
- 5. Please remember to thank the volunteers for their hard work on your home. They have dedicated their day to make your home more energy efficient.

I have read the timeline and expectations, and I agre	e to participate.	
Participant Signature	Date	

HOME ENERGY SAVINGS PROGRAM Energy Data Release Form

Name:	-		
Home Street Address:			
City, State & Zip:	_		
Phone Number:	-		
13 Digit Account Number:			
By signing below, I allow for NES and Hands On Nashville to savings associated with the above address.	o utilize my elec	tricity to analyz	ze and track energy
Participant Signature	Date		

HOME ENERGY SAVINGS PROGRAM Gas Data Release Form

Name:	
Home Street Address:	
City, State & Zip:	
Phone Number:	
Account Number:	_
By signing below, I allow for NES and Hands On Nashville to savings associated with the above address.	utilize my electricity to analyze and track energy
Participant Signature	Date

HOME ENERGY SAVINGS PROGRAM

Water Data Release Form

Name:	
Home Street Address:	
City, State & Zip:	
Phone Number:	
Account Number:	_
By signing below, I allow for NES and Hands On Nashville to savings associated with the above address.	utilize my electricity to analyze and track energy
Participant Signature	Date

HOME ENERGY SAVINGS PROGRAM Scope of Work Agreement

Install the following items:	
Compact fluorescent lights.	
Window and door caulking.	
Low-flow sink faucet aerators in kitchen & bat	hroom.
Reusable air filter.	
Weather strips and sweeps on doors.	
☐ Blown-in attic insulation	
Radiant barrier heat	
Insulated water pipes	
☐ Tape and mastic on HVAC ducts	
Provide the following items:	
☐ Fire extinguisher	
CO detector	
Smoke detector	
☐ Free HVAC cleaning (from Temp Control; they	will call for a checkup.)
Fridge/Freezer thermometer	
The HES Program is absolutely FREE to the	homeowner.
Upon completion of our scope of work, HON additional work on the home or return to do routine	N is no longer obligated to make any repairs or complete maintenance.
The Home Energy Savings Program is a one installed measures.	-day project; HON provides no maintenance visits for
Volunteers will be working in your home. The participate alongside the volunteers, when able.	e homeowner must be engaged on project day and
Project cancelation less than 48 hours befor service. No show for Temp Control appointment res	re the project date results in no project reschedule or sults in no service.
The homeowner will be asked to provide the who may qualify and be interested in applying for the	e names and phone numbers of two other homeowners ne HES Program.
Please sign below if you have read and understand t	these terms and conditions entirely:
Homeowner Signature	- Date
HES Representative Signature	- Date

Homeowner Pledge

STEP 9

I,, take the Home Energy Savings Pledge on
in an effort to save money on my utility bills. I will make a conscious effort to:
1) Turn off lights when I leave a room.
2) Keep my air conditioning set at 78 degrees in the summer.
3) Keep my heat set at 68 degrees in the winter.
4) Turn off the TV when I am not watching it.
5) Close my blinds during the summer to block out the heat.
6) Shut off the water when I am brushing my teeth or face.
7) Take shorter showers (7 minutes or less).
8) Dry my clothes outside or on a line.
9) Wash my clothes with cold or warm water.
10) Look at my utility bills each month to know what my usage is.
By doing the above actions, I will help reduce my impact on the environment and save money on my utility
bills. I will do my best to fulfill my Home Energy Savings Pledge and know that every small action will help
me reach my goals.

Homeowner Signature

HES Representative

Homeowner-to-Homeowner

Referral Program

In order for Hands On Nashville's Home Energy Savings (HES) Program to continue serving homeowners in Nashville, we must reach homeowners who qualify and are interested in the program.

As part of your agreement to participate, you are asked to provide the names and phone numbers of at least three homeowners who may qualify. In order to qualify, a homeowner must meet the following criteria:

The referral must be a homeowner. HES currently does not serve residents who are renters.

Please inform each referral that an HES representative will be contacting them in the near future. This form will be collected on the day of your scheduled project.

1.		
Name	Phone Number	Address
2 Name	 Phone Number	Address
3		
Name	Phone Number	Address
	I agree that I ha	ve done my best to provide eligible homeowners.
	Participant sign	ature Date
	Faiticipant sign	ature Date

HOME ENERGY SAVINGS PROGRAM Audit Evaluation Form

Homeowner's W I	INTER Temp	SUMMER Tem	ıp		
How often does h	homeowner char	nge the filter?			
Homeowner's W I	INTER Bills	SUMMER Bills	3		
Gas type: 🔲 H	leat 🔲 Sto	ve 🔲 Water H	eater		
Central Heat	and Air	HVAC unit age a	and location		
Last time service	ed:				
Space heater	rs Quantity _		ene		
\\/		C			
_		Conditioned Space		in haman	
			g homeowner has lived		
			lumber of bedrooms: _		
			Hatch Existing in		
			in home:		
		V			
			quantity:		
			20x30 ot	her:	
Pictures: h	omeowner portra	ait front of I	house facade		
Give HON busine	ess card (3 total: 1	1 for homeowner & 2	2 for referrals)		
HOMEOWNER B	IO:				
Nashville nat	ive				
Type of work:					
Hobbies:					
Notes:		_	CO detectors		
			Smoke det	ectors	
			Fire exting	uisher	
Scope of work notes:			* Remind to recycle CFLs		
KITCHEN	BED	BATH	LIVING	OTHER	
			I and the second se	I .	



Home Energy Savings



Understanding the HES Scope of Work Understanding Energy Bill Savings and Using Savings Calculator What You Can Do to Continue Saving

- 10 Things You Can Do Year Round to Save
- Seasonal Checklist

Helpful Additional Resources

About Hands On Nashville:

Hands On Nashville (HON) works to address critical issues facing the Middle Tennessee community through volunteer-centric programming. Annually, HON connects thousands of volunteers to service opportunities supporting area nonprofits as well as its programs in urban agriculture, home energy savings, youth leadership development and support of public education. Learn more at HON.org.

UNDERSTANDING The HES Scope of Work

Below is a checklist of items volunteers upgraded or installed during your Home Energy Savings Project. For tips on maintaining your HES installments, visit the page 17.

Health & Safety
These installments aim to help protect your home from dangers of fire and carbon monoxide poisoning.
☐ Smoke detector
Fire extinguisher
CO detector

Air Sealing

These measures help conditioned air from leaking out of your home. This also prevents outside air from entering your home.

Ш	Interior caulk
	Spray foam
	Door weatherstrip
	Door sweep
	1/2" weatherstrip
	AC window kit
	Energy Lid (box placed over attiaccess to seal attic)
	Mastic

Insulation

These measures help your heating and air-conditioning systems work more efficiently. They prevent drafts and uneven temperatures.

Bags of Insulation
Radiant Barrier
R19 Batt

Water

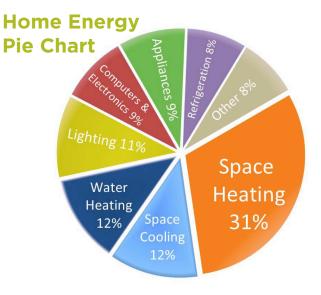
These measures reduce the amount of water flowing out of your home. They also keep water pressure the same.

Low-flow sink aerator
Low-flow showerhead
Pipe wrap
Toilet Tank Bank
Shower Timer

Energy

These measures reduce the amount of energy used in your home.

	Air filter (20x20)- change every month
	Air filter (20x25)- change every month
	Air filter (20x30) - change every month
	CFL light bulbs
	Clothes line
	Fridge thermometers
	Thermometer plates
\Box	Space heater(s)





UNDERSTANDING The HES Scope of Work

Home Care & Maintenance Plan - To Do List

Follow these best practices for maintaining items installed during your HES project!



Smoke Detectors: Replace batteries once a year. Change smoke detector at least once at every ten years.

Reusable Air Filter: Take filter out, shake out loose dust, and clean once a month with water in tub or with garden hose. Dry completely before using.

CO Detector: Take action right away if the alarm sounds; carbon monoxide is a harmful and deadly gas. It is important to read the instructions and know the symptoms of CO exposure.

Compact Florescent Light (CFLs) bulbs:

Recycle CFL's at local hardware or general stores when they burn out.

Temperature Light Plate Switch: Remember, the number on the left is the temperature in Fahrenheit and the number on the right is the percent humidity in the home.

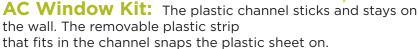


Temperature:

- In the winter set your home to 68 degrees
- In the summer, set your home to 78 degrees

Humidity:

- A healthy humidity level is between 30-50%.
- If your humidity is sustained at 70% or higher, mold issues may become a concern.
- Make sure to use a dehumidifier to reduce the humidity levels.



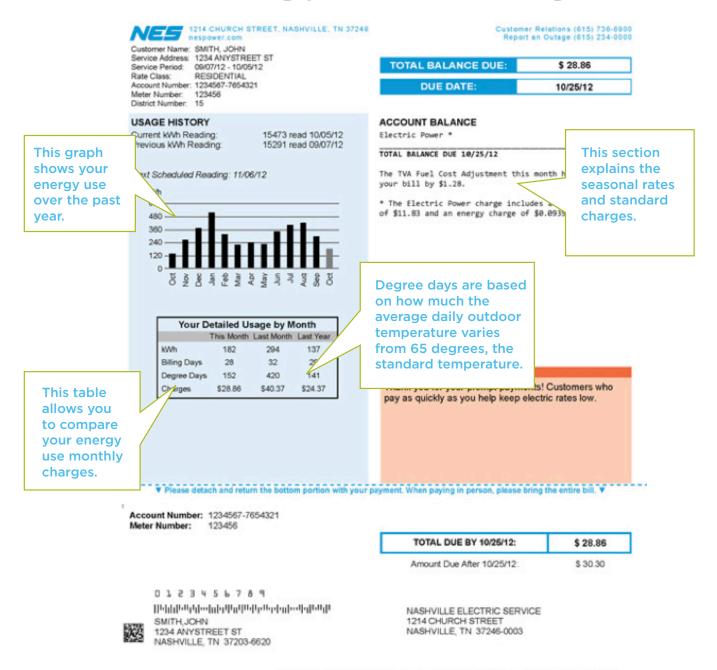
*During the summer, remove bottom sheet and store the strips in the channels.

Fire Extinguisher: Place the extinguisher where you are able to access it easily. It is rated for regular, oil based, and chemical fires. Replace after usable date expires.





UNDERSTANDING Energy Bill Savings



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What is a kWh?

This energy bill uses kWh to show you how much energy you use each month. A kWh stands for kilowatt-hour.

How much does it cost?

A kilowatt-hour costs about 10 cents here in Nashville. Use the Electricity Cost Calculator provided to see how much your appliances cost. The less energy you use, the less kWh you will be charged for.

For more information on kWh, visit page XX.



UNDERSTANDING Energy Bill Savings

Savings Calculator

Use the table below to record the "Amount Due" each month for your utility bills and add them together each month. Documenting each bill and seeing your bills change in one place will will make a difference in the expense. On average, energy improvements made during Home Energy Savings projects result in a 15% decrease in utility bills by making a few changes.

					Estimated savings
	Piedmont Gas	Metro Water	NES	TOTAL	multiply by .65 to estimate a 20% reduction
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

*We recommend you spend part of your savings on an annual HVAC Tune-Up because the furnace is the most expensive appliance in your home.

YEAR END TOTAL=

Wouldn't it be easier to multiply year total by 15% to estimate your savings?

WHAT YOU CAN DO TO Continue Saving

Things I Do to Save on My Utility Bills

- Turn off lights when I leave a room.
- Keep my air conditioning set at **78 degrees** in the summer.
- Keep my heat set at **68 degrees** in the winter.
- Turn off the TV when I am not watching it.
- Close my blinds during the summer to block out the heat.
- **Shut off the water** when I am brushing my teeth or face.
- Take shorter showers (7 minutes or less).
- Dry my clothes outside or on a line.
- Wash my clothes with cold or warm water.
- Look at my utility bills each month to know what my usage is.

 Hands On

WHAT YOU CAN DO TO Continue Saving

Year-Round Energy Action Checklist

TURN ELECTRONICS OFF Turn off and unplug appliances like TVs, toasters, and lights when you aren't using them.
REMOVE LINT FROM DRYER Built up dryer lint can cause your dryer to work harder to dry your clothes which means it uses more energy and costs more to run. It can also shorten the lifespan of the appliance.
WASH LAUNDRY WITH COLD WATER Wash your clothes on cold with cold water detergent. This saves money on heating water. Do full loads of laundry. Filling up your washing machine with water requires energy, and it's a waste if done for a partial load.
CLEAN LIGHT BULBS Vacuuming and wiping clean light bulbs and lighting fixtures can also help save energy. Dust and kitchen grease can build up and reduce the bulbs' brightness, requiring you to turn on more fixtures to get the light you need.
CLEAN FILTERS Clean furnace air filters montly. A clean filter saves 5% on heating costs and saves the life of you A/C unit.





WHAT YOU CAN DO TO Continue Saving

Winter Energy Action Checklist

LOWER YOUR THERMOSTAT TO 68 DEGREES* For every degree you lower the thermostat, you can save 1% on your heating bill. Changing your thermostat is the #1 way to save money on your NES Bill. Biggest Savings
KEEP YOUR VENTS CLEAR Remove furniture or items that block heating vents to optimize airflow. Heating and cooling the home accounts for 50% of your bill, so don't make it work harder than it has to.
OPEN CURTAINS AND BLINDS Make the most of natural sunlight in the winter by opening window coverings. The heat of the sunlight can warm your home.
SECURE WINDOWS Make sure all windows are locked shut to reduce air leakage.

Helpful tips

- Use kerosene or infrared space heaters to feel warmer. LOWER your thermostat while using these appliances or you are wasting money!
- Drink warm liquids, like hot chocolate, to warm the body and mind!
- BUY RIGHT When buying new appliances, choose ENERGY STAR-certified models. A new ENERGY STAR refrigerator uses about 20 percent less energy than a standard new refrigerator, and 46 percent less than one made in 1980. A new Energy Star® clothes washer uses nearly 50 percent less energy than a standard washer.

HandsOn

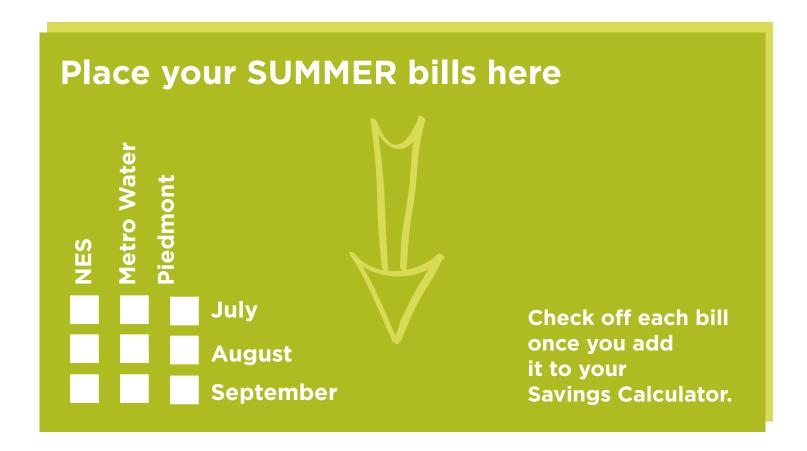


WHAT YOU CAN DO TO Continue Saving

Spring Energy Action Checklist

CHANGE CEILING FAN TO COUNTER-CLOCKWISE* When you're doing your spring cleaning, make sure all the fans are working properly and are dust-free. During the warm months, switch the direction to counter-clockwise and draw air upward, cooling the room and ensuring constant airflow.
CLEAN FRIDGE COILS Your fridge uses the most electricity of appliances in the home. When dust builds up on your refrigerator condenser coils, the motor works harder and uses more electricity. As part of your spring-cleaning routine, make sure the coils are cleaned so that air can circulate freely.
LINE DRY CLOTHES Use an interior or exterior clothes line to dry your clothes instead of an electric dryer. Biggest Savings
CLOSE WINDOWS & CURTAINS AT DAYTIME Your home warms up during the day. Keep heat out by closing windows & curtains in the morning to keep the cool air in and the hot air out.
OPEN WINDOWS AT NIGHT* Turn off your thermostat, take off your storm windows, put in screens and open up the windows to get your house to a comfortable temperature. Open opposite windows to optimize cross ventiliation.





WHAT YOU CAN DO TO Continue Saving

Summer Energy Action Checklist

RAISE YOUR THERMOSTAT TO 78 DEGREES This is the #1 way to lover your NES bill. For every degree you lower your thermostat, you'll spend 1% more on your light bill. Biggest Savings
SHUT THE SHADES Shut the curtains during the hottest time of day or when you're leaving for work in the morning.
TURN YOUR AIR CONDITIONER OFF AT NIGHT During the evening hours, turn off the air conditioner and open the windows.

Helpful tip

• Get your furnace and air conditioner tuned up twice a year. This ensures your unit is running as efficiently as possible. This results in lower utility bills and extends the life of your unit. An average air conditioner unit costs \$6,000 to \$8,000.





WHAT YOU CAN DO TO Continue Saving

Fall Energy Action Checklist

CLEAN GUTTERS* Clean leaves out of your gutters and prevent roof damage.
SAFETY CHECK Check the batteries on your smoke detectors and CO detectors. Fire extinguishers expire, so check the pressure gauge on yours to make sure it's still good to use. If the gauge is in any color but green, you need to replace it.
MOTION SENSOR BULBS Consider installing motion sensors on the porch lights.



HELPFUL Community Resources

The following organizations provide assistance for homeowners.

NeedLink Nashville:

Contact: (615) 269-6835

Address: 295 Plus Park Blvd. Nashville,

TN 37217

For 100 years, NeedLink Nashville has helped neighbors meet their most basic needs in times of financial crisis.

NeedLink provides 4,000 families with food, heat,

water, and hope every year.



Contact: (800) 318-9335

250 Venture Circle Nashville, TN 37228 When you call, you'll get a real person who is trained to help you sort out your needs, and then give you phone numbers and addresses of the closest places where you can get help.

Mid-Cumberland - Meals On Wheels

Contact: (615) 331-6033

1101 Kermit Drive, Suite 300 Nashville, TN 37217 Meals-on-Wheels has been providing healthy home-delivered and café-style meals to Middle Tennessee seniors, age 60 and over, for more than 30 years. Seniors who are physically able enjoy their meal at congregate sites. Homebound seniors have their meals delivered to their homes.

FiftyForward

Contact: (615) 743-3400

174 Rains Avenue Nashville, TN 37203 From 8:30 a.m. to 4:30 p.m. Monday through Friday, and on occasional evenings, the senior center bustles with a variety of programs and classes. Among the most popular are computer lessons, SilverSneakers® Fitness Program, yoga, men's group knitting and crocheting, scrapbooking, Spanish conversation, genealogy, book club, and a writer's group.

Rebuilding Together Nashville

Contact info: (615) 891-1235

Provides structural rebuilding services completed by volunteers. Call to learn more and get an application.



Habitat for Humanity of Greater Nashville Restore Nashville:

Donation Pick-up: (615) 942-1290 Offers gently used items for home and office

FREE Help with Your Finances

The Financial Empowerment Center offers FREE financial counseling.

Trained financial counselors can help you:

- Manage bills
- Decrease your debt
- Improve your credit
- Increase your savings And More!

Confidential: Meet one-on-one with a counselor. **Convenient:** Multiple locations in Nashville. West Nashville location: St. Luke's Community House

5601 New York Avenue, 37209 First and third Tuesday each month 11:30 a.m. —5:30 p.m.

Affordable: All services are free – regardless of your income.

Languages: Services are available in English and Spanish.

Call 2-1-1 to make an appointment with a financial counselor.



HELPFUL Community Resources

The following businesses may be able to help you with home repairs. Please tell each contact below you were referred by Hands On Nashville's Home Energy Savings Program.

Hands On Nashville:

For general questions and information about your project or inspection. Contact: Josef Kaul, Sustainability Manager (615) 298-1108 EXT. 401

Heating & Cooling:

Temp Control, LLC Contact: (615) 837-4449

Roofing:

Roof Doctors, LLC Contact: (615) 448-6349

Plumbing:

M.J. Frick Co. Contact: (615) 249-8824

Electrical:

Edwards Electric Contact: (615) 256-6196



HELPFUL Resources for Energy Savings

How Electricity is Measured

A kilowatt-hour (kWh) is a unit of energy equal to 1,000 watt-hours. If energy is being used over a period of time, like your home energy, the total energy in kilowatt-hours is the product of the power in kilowatts and the time in hours.

A typcial Nashville home uses 43 kWh each day. That is roughly 1,800 Watts each hour.



Watt= 1 watt



60 W
A 60 watt light bulb uses 60 watts of energy in 1 hour.



Kilowatt= 1,000 watts



1.8 kW A typical Nashville home uses 1.8 kilowatts each hour.

How do I save money on electricity?

The less energy you use, the fewer kWh you pay for each month, resulting in smaller bills.

How does air enter and exit my home?

Stack Effect is the movement of air into and out of buildings.

During the WINTER, warm indoor air rises up and escapes through windows, vent openings, or into your attic. Cold air comes in through either open doors, windows, or other openings and leaks.

During **SUMMER** months, cooled indoor air escapes and warm air tries to enter the home.

